

IN THE CLAIMS

1. – 33. (Cancelled)

34. (Currently Amended) Apparatus for intercepting a target, the apparatus including:

- a) a projectile deployment system having:
 - i) a body; and,
 - ii) a number of projectile systems mounted to the body in an array, each projectile system being adapted to deploy a number of projectiles in a predetermined direction with respect to the body and, including:
 - (1) a barrel,
 - (2) a number of projectiles, and
 - (3) a number of charges, each charge being adapted to urge a respective projectile along the barrel to thereby deploy the projectile; and
- b) a controller, the controller being adapted to selectively activate one or more of the projectile systems to thereby deploy projectiles in accordance with a projectile deployment pattern, wherein the controller includes
 - one or more sensors for sensing the target, and
 - a processor adapted to
 - monitor the sensors to thereby determine the position of the target with respect to the projectile deployment system~~missile~~,
 - determine a projectile deployment pattern,

select one or more of the projectile systems in accordance with the projectile deployment pattern, and activate the selected projectile systems.

35. (Previously presented) Apparatus according to claim 34, further including:
 - a) a vehicle having a vehicle body defining a vehicle axis;
 - b) a propellant system for propelling the vehicle; and
 - c) a flight controller, the flight controller being adapted to control the propellant system to thereby control the vehicle trajectory.
36. (Previously presented) Apparatus according to claim 34, further including a projectile deployment system, the projectile deployment system including:
 - a) a body defining a body axis;
 - b) a barrel array formed from a number of barrels circumferentially spaced around the body axis, each barrel being arranged at a predetermined angle with respect to the body axis;
 - c) a number of projectiles axially stacked along each barrel; and
 - d) a number of charges, each charge being associated with a respective projectile to urge the respective projectile along the barrel upon activation to thereby deploy the projectile.
37. (Previously presented) Apparatus according to claim 36, wherein the projectile deployment system is aligned such that the vehicle axis is substantially coaxial with the body axis.

38. (Previously presented) Apparatus according to claim 36, wherein deployment of each projectile causes a reactive force along the respective barrel, the pattern of projectiles being at least one of:

- a) symmetric around the body axis to thereby equalise the reactive forces on the body; and
- b) non-symmetric around the body axis to thereby generate non-symmetric reactive forces, thereby causing deflection of the body.

39. (Previously presented) Apparatus according to claim 38, wherein a firing pattern of the projectiles is adapted to control the trajectory of the vehicle.

40. (Previously presented) Apparatus according to claim 34, wherein the target is a missile.

41. (Previously presented) Apparatus according to claim 34, wherein the projectile deployment pattern is selected to thereby increase the effective cross sectional area of the vehicle.

42. (Cancelled)

43. (Previously presented) Apparatus according to claim 34, wherein the controller includes a store for storing pattern data representing a number of different projectile deployment patterns, the processor being adapted to select one of the stored projectile deployment patterns in accordance with the position of the target.

44. (Previously presented) Apparatus according to claim 34, wherein the vehicle is at least one of a kill vehicle and a missile.

45. (Previously presented) A missile for intercepting a target, the missile including:

a) a missile body defining a missile axis; and

b) apparatus including:

a projectile deployment system having:

i) a body; and

ii) a number of projectile systems mounted to the body in an array, each projectile system being adapted to deploy a number of projectiles in a predetermined direction with respect to the body and, including:

(1) a barrel,

(2) a number of projectiles, and

(3) a number of charges, each charge being adapted to urge a respective projectile along the barrel to thereby deploy the projectile;

a controller, the controller being adapted to selectively activate one or more of the projectile systems to thereby deploy projectiles in accordance with a projectile deployment pattern, wherein the controller includes one or more sensors for sensing the target, and

a processor adapted to

monitor the sensors to thereby determine the position of the target with respect to the missile,

determine a projectile deployment pattern,
select one or more of the projectile systems in accordance with the
projectile deployment pattern, and
activate the selected projectile systems.

46. – 49. (Cancelled)

50. (Previously Presented) An apparatus according to claim 34, wherein the controller determines the projectile deployment pattern using a lookup table.

51. (Previously presented) Apparatus according to claim 34, wherein the body includes a cavity for receiving the controller.

52. (Previously presented) Apparatus according to claim 34, wherein the one or more sensors are located remotely from the body and the controller is coupled to the one or more sensors via a communications system.

53. (Previously presented) Apparatus according to claim 43, wherein the pattern data indicates at least one of:

- a) the barrels from which projectiles should be fired; and
- b) the rate of deployment of the projectiles.

54. (Previously presented) Apparatus according to claim 36, wherein at least some of the barrels extend radially outwardly from the body axis.

55. (Previously presented) Apparatus according to claim 36, wherein at least some of the barrels define a barrel array, the barrel array being rotatably mounted to the body to thereby rotate about the body axis.

56. (Previously presented) Apparatus according to claim 36, wherein at least some of the barrels extend in a direction parallel to the body axis.

57. (Previously presented) Apparatus according to claim 34, wherein at least some of the barrels define a barrel array for deploying projectiles in directions along and outwardly from the body axis.